AMENDMENTS TO THE CLAIMS

1-33. (canceled)

34.   (Currently Amended) An image processing system comprising:

an image providing apparatus which defines a location information indicating a plurality of regions in ~~an~~ image ~~file~~ data for embedding a digital watermark in a desired region among the plurality of regions and providing said image ~~file~~data, in which said digital watermark is embedded based on said location information; and

an image utilizing apparatus which extracts said digital watermark from said image ~~file~~ data provided by said image providing apparatus based on said location information, and verifies whether ~~a~~ of said image data in said desired region, in which said digital watermark is embedded, has been tampered.

35.   (Currently Amended) An image processing system comprising:

an image providing apparatus which recognizes a format for indicating a plurality of regions in ~~an~~ image ~~file~~ data and provides said image ~~file~~ data in which a digital watermark is embedded in a desired region among the plurality of regions based on said format; and

an image utilizing apparatus which recognizes said format of said image ~~file~~data, extracts said digital watermark from said desired region based on said format, and verifies whether ~~a~~ said image data in said desired region in said image ~~file~~data, in which said digital watermark is embedded, has been tampered.

36.   (Currently Amended) An image processing system as claimed in claim 34 or 35, wherein said image providing apparatus provides said image ~~file~~ data in which a different kind of said digital watermark is embedded in a different region in said image data~~file~~.

37.   (Currently Amended) An image processing system as claimed in claim 36, wherein said image providing apparatus provides said image ~~file~~ data in which a different kind of said digital watermark is embedded according to an image quality in each region where said digital watermark is embedded.

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38.   (Currently Amended) An image processing system as claimed in claim 34, wherein:

said location information for embedding a digital watermark includes a location information of a region for displaying a specific information necessary for detecting a tamper; and

said image utilizing apparatus extracts said digital watermark with said message digest from said image ~~file~~ data based on said location information, and generates a corresponding message digest using said specific information in said provided image ~~file~~data, and detects tampering with said image ~~file~~ data by comparing said extracted message digest with said corresponding generated message digest.

39.   (Currently Amended) An image processing system as claimed in claim 34, wherein:

said location information for embedding a digital watermark includes a location information of a region for displaying a specific information necessary for detecting a tamper and a location information of a region for embedding a message digest corresponding to said specific information; and

said image utilizing apparatus extracts said digital watermark with said message digest from said image ~~file~~ data based on said location information, generates a corresponding message digest using said specific information in said provided image ~~file~~data, and detects tampering with said image ~~file~~ data by comparing said extracted message digest with said corresponding generated message digest.

40.   (Original)   An image processing system as claimed in claim 39, wherein said region for embedding said message digest corresponding to said specific information is independent of said region for displaying said specific information necessary for detecting said tamper.

41.   (Currently Amended) An image processing system as claimed in claim 34, wherein:

said location information is registered in both of said image providing apparatus and said image utilizing apparatus;

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said image providing apparatus embeds said digital watermark in said image ~~file~~ data based on said registered location information; and

said image utilizing apparatus extracts said digital watermark from said image ~~file~~ data based on said registered location information.

42.   (Currently Amended) An image processing system as claimed in claim 34, wherein:

said image providing apparatus transfers said location information to said image utilizing apparatus;

said image providing apparatus embeds said digital watermark in said image ~~file~~ data based on said location information to be transferred; and

said image utilizing apparatus extracts said digital watermark from said image ~~file~~ data based on said location information transferred from said image providing apparatus.

43.   (Currently Amended) An image providing apparatus comprising:

a location defining means which defines a location information indicating a plurality of regions in ~~a~~ image ~~file~~ data for embedding a digital watermark in a desired region among the plurality of regions in said image ~~file~~ data; and

a providing means which provides said image ~~file~~ data in which said digital watermark is embedded based on said location information.

44.   (Currently Amended) An image providing apparatus comprising:

a format recognizing means which recognizes a format for indicating a plurality of regions in ~~an~~ image ~~file~~ data; and

a providing means which provides said image ~~file~~ data in which a digital watermark is embedded in a desired region among the plurality of regions based on said format.

45.   (Currently Amended) An image providing apparatus as claimed in claim 43 or 44,

wherein said providing means provides said image ~~file~~ data in which a different kind of said digital watermark is embedded in a different region in said image ~~file~~ data.

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46. (Currently Amended) An image providing apparatus as claimed in claim 45, wherein said providing means provides said image ~~file~~ data in which a different kind of said digital watermark is embedded according to an image quality in each region where said digital watermark is embedded.

47. (Original) An image providing apparatus as claimed in claim 43, wherein said location information for embedding a digital watermark includes a location information of a region for displaying a specific information necessary for detecting a tamper and a location information of a region for embedding a message digest corresponding to said specific information.

48. (Original) An image providing apparatus as claimed in claim 47, wherein said region for embedding said message digest corresponding to said specific information is independent of said region for displaying said specific information necessary for detecting said tamper.

49. (Currently amended) An image <u>providing apparatus as claimed in claim 43, further comprising:</u>

an image <u>utilizing apparatus</u> ~~comprising~~<u>that includes</u>:

an inputting means which inputs ~~an image file in which a location information indicates a plurality of regions in said image file for embedding a digital watermark in a desired region among the plurality of regions in~~ said image ~~file~~<u>data</u>;

an extracting means which extracts said digital watermark from said image ~~file~~ <u>data</u> based on said location information; and

a verifying means which verifies whether ~~a~~ <u>said image</u> data in said desired region, in which said digital watermark is embedded, has been tampered.

50. (Currently amended) An image <u>providing apparatus as claimed in claim 44, further comprising:</u>

an image <u>utilizing apparatus</u> ~~comprising~~<u>that includes</u>:

an inputting means which inputs ~~an~~<u>said</u> image ~~file~~<u>data</u>;

a format recognizing means which recognizes said format of said image file, said format indicating a plurality of regions in said image file for embedding a digital watermark in a desired region among the plurality of regions;

an extracting means which extracts said digital watermark from said desired region based on said format; and

a verifying means which verifies whether a said image data in said deisred desired region, in which said digital watermark is embedded, has been tampered.

51.   (Currently Amended) An image utilizing apparatus as claimed in claim 49, further comprising a generating means which generates a corresponding message digest using said specific information in said input image filedata, and wherein:

said extracting means which extracts said digital watermark with said message digest from said image file data based on said location information; and

said verifying means which detects tampering with said image file data by comparing said extracted message digest with said corresponding generated message digest.

52.   (Currently Amended) A recording medium storing a program to be executed by a computer, said program comprising:

a location defining module which defines a location information indicating a plurality of regions in an image file data for embedding a digital watermark in a desired region among the plurality of regions in said image filedata; and

a providing module which provides said image file data in which said digital watermark is embedded based on said location information.

53.   (Currently Amended) A recording medium storing a program to be executed by a computer, said program comprising:

a format recognizing module which recognizes a format indicating a plurality of regions in an image filedata; and

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a providing module which provides said image ~~file~~ data in which a digital watermark is embedded in a desired region among the plurality of regions based on said format.

54.   (Currently Amended) A recording medium as claimed in claim 52 or 53, wherein said providing module provides said image ~~file~~ data in which a different kind of said digital watermark is embedded in a different region in said image ~~file~~ data.

55.   (Currently Amended) A recording medium as claimed in claim 54, wherein said providing module provides said image ~~file~~ data in which a different kind of said digital watermark is embedded according to an image quality in each region where said digital watermark is embedded.

56.   (Original)   A recording medium as claimed in claim 52, wherein said location information for embedding a digital watermark includes a location information of a region for displaying a specific information necessary for detecting a tamper and a location information of a region for embedding a message digest corresponding to said specific information.

57.   (Original)   A recording medium as claimed in claim 56, wherein said region for embedding said message digest corresponding to said specific information is independent of said region for displaying said specific information necessary for detecting said tamper.

58.   (Currently amended) A recording medium ~~storing a program to be executed by a computer~~ as claimed in claim 52, said program ~~further~~ comprising:

    an inputting module which inputs ~~an image file in which a location information indicates a plurality of regions in said image file for embedding a digital watermark in a desired region among the plurality of regions in~~ said image ~~file~~ data;

    an extracting module which extracts said digital watermark from said image ~~file~~ data based on said location information; and

    a verifying module which verifies whether ~~a~~ said image data in said desired region, in which said digital watermark is embedded, has been tampered.

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59.   (Currently amended)   A recording medium ~~storing a program to be executed by a computer~~as claimed in claim 53, said program _further_ comprising:

an inputting module which inputs ~~an~~said image ~~file~~data;

~~a format recognizing module which recognizes said format of said image file, said format indicating a plurality of regions in said image file for embedding a digital watermark in a desired region among the plurality of regions;~~

an extracting module which extracts said digital watermark from said desired region based on said format; and

a verifying module which verifies whether ~~a~~said image data in said desired region, in which said digital watermark is embedded, has been tampered.

60.   (Currently Amended) A recording medium as claimed in claim 58, further comprising a generating module which generates a corresponding message digest using said specific information in said input image ~~file~~data, and wherein:

said extracting module which extracts said digital watermark with said message digest from said image ~~file~~data based on said location information; and

said verifying module which detects tampering with said image ~~file~~data by comparing said extracted message digest with said corresponding generated message digest.

61.   (Currently Amended) An image verifying method comprising:

inputting ~~an~~image ~~file~~data in which a location information indicates a plurality of regions in said image ~~file~~data for embedding a digital watermark in a desired region among said plurality of regions in said image ~~file~~data;

extracting said digital watermark from said image ~~file~~data based on said location information; and

verifying whether ~~a~~said image data in said desired region, in which said digital watermark is embedded, has been tampered.

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62.   (Currently Amended) An image verifying method comprising:

inputting ~~an~~ image ~~file~~data;

recognizing said format of said image ~~file~~data, said format indicating a plurality of regions in said image ~~file~~ data for embedding a digital watermark in a desired region among the plurality of regions;

extracting said digital watermark from said desired region based on said format; and

verifying whether ~~a~~ said image data in said desired region, in which said digital watermark is embedded, has been tampered.

63.   (Currently Amended) An image verifying method as claimed in claim 61, further comprising generating a corresponding message digest using said specific information in said input image ~~file~~data, and wherein:

said extracting said digital watermark extracts said digital watermark with said message digest from said image ~~file~~data based on said location information; and

said verifying tampering detects tampering with said image ~~file~~data by comparing said extracted message digest with said corresponding generated message digest.

64.   (Currently Amended) An image processing system ~~comprising:~~

~~an image providing apparatus which provides an image file, from which~~as claimed in claim 34, wherein said digital watermark includes a digital watermark information ~~can be extracted~~that is extractable by using a watermark key that includes an authentication information which authenticates said image ~~file~~data provided by an valid provider, and said watermark key of said image ~~file~~data,~~;~~ and wherein

~~an~~said image utilizing apparatus which extracts said digital watermark information from said image ~~file~~data provided by said image providing apparatus using said watermark key provided by said image providing apparatus, verifies whether said watermark key has been tampered or not using said authentication information in said watermark key, verifies whether said image ~~file~~data

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has been tampered or not using said verified watermark key, and displays said verified image ~~file~~data~~, wherein~~

~~said image providing apparatus defines a location information indicating a plurality of regions in said image file for embedding said digital watermark in a desired region among the plurality of regions in said image file, and provides said image file in which said digital watermark is embedded based on said location information, and~~

~~said image utilizing apparatus extracts said digital watermark from said image file provided by said image providing apparatus based on said location information, and verifies whether a data in said desired region, in which said digital watermark is embedded, has been tampered.~~

65.   (Currently Amended) An image processing system ~~comprising:~~

~~an image providing apparatus which provides an image file, from which~~as claimed in claim 35, wherein said digital watermark includes a digital watermark information ~~can be extracted~~that is extractable by using a watermark key that includes an authentication information which authenticates said image ~~file~~data provided by an valid provider, and said watermark key of said image ~~file~~data~~;~~, and wherein   .

~~an~~said image utilizing apparatus which extracts said digital watermark information from said image ~~file~~data provided by said image providing apparatus using said watermark key provided by said image providing apparatus, verifies whether said watermark key has been tampered or not using said authentication information in said watermark key, verifies whether said image ~~file~~data has been tampered or not using said verified watermark key, and displays said verified image ~~file~~data~~, wherein~~

~~said image providing apparatus recognizes a format of said image file, and provides said image file in which said digital watermark is embedded in a desired region among a plurality of regions in said image file based on said format, and~~

~~said image utilizing apparatus recognizes said format of said image file provided by said image providing apparatus, extracts said digital watermark from said desired region based on said~~

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format, and verified whether a data in said desired region, in which said digital watermark is embedded, has been tampered.

66.   (Currently Amended) The image processing system according to claim 34, wherein a density of said digital watermark is adjusted to a quality of said image filedata.

67.   (Currently Amended) The image processing system according to claim 66, wherein a data amount of said digital watermark for a character is smaller that one for an other type of information in said image filedata.

68.   (Currently Amended) The image processing system according to claim 35, wherein a density of said digital watermark is adjusted to a quality of said image filedata.

69.   (Currently Amended) The image processing system according to claim 68, wherein a data amount of said digital watermark for a character is smaller that one for an other type of information in said image filedata.

70.   (Currently Amended) The image providing apparatus according to claim 43, wherein a density of said digital watermark is adjusted to a quality of said image filedata.

71.   (Currently Amended) The image providing apparatus according to claim 70, wherein a data amount of said digital watermark for a character is smaller that one for an other type of information in said image filedata.

72.   (Currently Amended) The image providing apparatus according to claim 44, wherein a density of said digital watermark is adjusted to a quality of said image filedata.

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73.	(Currently Amended) The image providing apparatus according to claim 72, wherein a data amount of said digital watermark for a character is smaller that one for an other type of information in said image ~~file~~data.

74.	(Currently Amended) The image utilizing apparatus according to claim 49, wherein a density of said digital watermark is adjusted to a quality of said image ~~file~~data.

75.	(Currently Amended) The image utilizing apparatus according to claim 74, wherein a data amount of said digital watermark for a character is smaller that one for an other type of information in said image ~~file~~data.

76.	(Currently Amended) The image providing apparatus according to claim 50, wherein a density of said digital watermark is adjusted to a quality of said image ~~file~~data.

77.	(Currently Amended) The image providing apparatus according to claim 76, wherein a data amount of said digital watermark for a character is smaller that one for an other type of information in said image ~~file~~data.

78.	(Currently Amended) The recording medium according to claim 52, wherein a density of said digital watermark is adjusted to a quality of said image ~~file~~data.

79.	(Currently Amended) The recording medium according to claim 78, wherein a data amount of said digital watermark for a character is smaller that one for an other type of information in said image ~~file~~data.

80.	(Currently Amended) The recording medium according to claim 53, wherein a density of said digital watermark is adjusted to a quality of said image ~~file~~data.

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81. (Currently Amended) The recording medium according to claim 80, wherein a data amount of said digital watermark for a character is smaller that one for an other type of information in said image ~~file~~data.

82. (Currently Amended) The recording medium according to claim 58, wherein a density of said digital watermark is adjusted to a quality of said image ~~file~~data.

83. (Currently Amended) The recording medium according to claim 82, wherein a data amount of said digital watermark for a character is smaller that one for an other type of information in said image ~~file~~data.

84. (Currently Amended) The recording medium according to claim 59, wherein a density of said digital watermark is adjusted to a quality of said image ~~file~~data.

85. (Currently Amended) The recording medium according to claim 84, wherein a data amount of said digital watermark for a character is smaller that one for an other type of information in said image ~~file~~data.

86. (Currently Amended) The image verifying method according to claim 61, wherein a density of said digital watermark is adjusted to a quality of said image ~~file~~data.

87. (Currently Amended) The image verifying method according to claim 86, wherein a data amount of said digital watermark for a character is smaller that one for an other type of information in said image ~~file~~data.

88. (Currently Amended) The image verifying method according to claim 62, wherein a density of said digital watermark is adjusted to a quality of said image ~~file~~data.

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89.   (Currently Amended) The image verifying method according to claim 88, wherein a data amount of said digital watermark for a character is smaller that one for an other type of information in said image ~~file~~data.

90.   (Currently Amended) The image processing system according to claim 64, wherein a density of said digital watermark is adjusted to a quality of said image ~~file~~data.

91.   (Currently Amended) The image processing according to claim 90, wherein a data amount of said digital watermark for a character is smaller that one for an other type of information in said image ~~file~~data.

92.   (Currently Amended) The image processing system according to claim 65, wherein a density of said digital watermark is adjusted to a quality of said image ~~file~~data.

93.   (Currently Amended) The image processing according to claim 92, wherein a data amount of said digital watermark for a character is smaller that one for an other type of information in said image ~~file~~data.

94.   (New) The image processing system according to claim 34, wherein said desired region at least one of character information or image information.

95.   (New) The image processing system according to claim 94, wherein a density of said digital watermark embedded in a desired region comprising character information is smaller that a density of said digital watermark embedded in a desired region comprising image information.

96.   (New) The image processing system according to claim 35, wherein said desired region at least one of character information or image information.

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97.　(New)　The image processing system according to claim 96, wherein a density of said digital watermark embedded in a desired region comprising character information is smaller that a density of said digital watermark embedded in a desired region comprising image information.

98.　(New)　The image providing apparatus according to claim 43, wherein said desired region at least one of character information or image information.

99.　(New)　The image processing system according to claim 98, wherein a density of said digital watermark embedded in a desired region comprising character information is smaller that a density of said digital watermark embedded in a desired region comprising image information.

100.　(New)　The recording medium according to claim 52, wherein said desired region at least one of character information or image information.

101.　(New)　The recording medium according to claim 100, wherein a density of said digital watermark embedded in a desired region comprising character information is smaller that a density of said digital watermark embedded in a desired region comprising image information.

102.　(New)　The recording medium according to claim 53, wherein said desired region at least one of character information or image information.

103.　(New)　The recording medium according to claim 102, wherein a density of said digital watermark embedded in a desired region comprising character information is smaller that a density of said digital watermark embedded in a desired region comprising image information.

104.　(New)　The image verifying method according to claim 61, wherein said desired region at least one of character information or image information.

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105.   (New) The image verifying method according to claim 104, wherein a density of said digital watermark embedded in a desired region comprising character information is smaller that a density of said digital watermark embedded in a desired region comprising image information.

106.   (New) The image verifying method according to claim 62, wherein said desired region at least one of character information or image information.

107.   (New) The image verifying method according to claim 106, wherein a density of said digital watermark embedded in a desired region comprising character information is smaller that a density of said digital watermark embedded in a desired region comprising image information.

108.   (New) The image providing apparatus according to claim 44, wherein said desired region at least one of character information or image information.

109.   (New) The image providing apparatus according to claim 109, wherein a density of said digital watermark embedded in a desired region comprising character information is smaller that a density of said digital watermark embedded in a desired region comprising image information.